



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,261	09/28/2000	YUTAKA TAKEUCHI	106375	8216

25944 7590 08/18/2003

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

DI GRAZIO, JEANNE A

ART UNIT PAPER NUMBER

2871

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/671,261

Applicant(s)

TAKEUCHI, YUTAKA

Examiner

Jeanne A. Di Grazio

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,8,9,12.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

Priority to Japanese Patent Application No. 11-275250 (Sept. 28, 1999) is claimed.

Application History

This application is based on a Request for Continued Examination under 37 C.F.R. 1.114 filed July 24, 2003 and forwarded to the Examiner on August 6, 2003. This application is examined based on the Amendment of June 13, 2003.

Claims 1-4 are pending in this application.

Drawings

Figures 17 and 18 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 1 objected to because of the following. Claim 1 introduces the limitation "effective region" in line 12 without proper antecedent basis earlier in the claim. Applicant is required to introduce "effective region" at an appropriate point in the claim prior to introducing the limitation towards the end of the claim without antecedent basis. Appropriate correction is required.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The Examiner wishes to suggest the following title: "Electrical Circuit for Preventing Shorting of Scanning or Data Electrodes and Electronic Device Incorporating the Same."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA) Figure 17 in view of Kobayashi (JP-09-318962).

Per claims 1-3: Applicant's Figure 17 discloses a part of an electrode width of an electrode strip in an unformed region of a protective layer being equal to an electrode width of an electrode strip on the protective layer within an effective region (DESCRIPTION OF RELATED ART, page 1, lines 10-32 and page 2, lines 1-32). In Figure 17, it may be implied that a pair of sides of an electrode strip align with each other as recited in claim 3. APA (Figure 17) does not appear to have a plurality of electrode strips arranged on the protective layer and extending from a formation region of the protective layer to an unformed region of the protective layer, an electrode width of an electrode strip in a step portion forming an outline of the protective layer being set to be narrower than an electrode width of an electrode strip in the protective layer in an

Art Unit: 2871

effective region of the liquid crystal device; however, Kobayashi Figure 1 illustrates electrodes with widths differing between display and non-display regions.

The problem to be solved in Kobayashi, is one of being able to properly inspect for shorts and breaks of electrodes that are arranged within narrow gaps and thereby ensure a high quality display device [0011-0015]. This problem is resolved by having electrode widths that vary with respect to display and non-display regions so that shorts can be easily and efficiently detected.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify APA Figure 17 in view of Kobayashi for a simple electrical circuit in which shorts and breaks can be easily detected by appropriately configuring electrode widths in display versus non-display regions.

Per claim 4: Kobayashi, Figure 8, illustrates an electronic device that incorporates the electrical circuit having the differing electrode widths. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the electrical circuit as claimed in claim 1 into an electronic device where one could easily and efficiently test for breaks and shorts and thereby ensure an excellent display quality.

II. Claims 1-3 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA) Figure 17 in view of Mizuno et al. (US 6,522,378 B1).

Per claims 1-3: Applicant's Figure 17 discloses a part of an electrode width of an electrode strip in an unformed region of a protective layer being equal to an electrode width of an electrode strip on the protective layer within an effective region (DESCRIPTION OF RELATED ART, page 1, lines 10-32 and page 2, lines 1-32). In Figure 17, it may be implied that a pair of sides of an electrode strip align with each other as recited in claim 3. APA (Figure 17) does not

Art Unit: 2871

appear to have a plurality of electrode strips arranged on the protective layer and extending from a formation region of the protective layer to an unformed region of the protective layer, an electrode width of an electrode strip in a step portion forming an outline of the protective layer being set to be narrower than an electrode width of an electrode strip in the protective layer in an effective region of the liquid crystal device; however, Mizuno Figure 2 illustrates electrodes with width extending regions narrower than widths of electrodes (Figure 2).

The problem to be solved in Mizuno is one of preventing short circuiting of adjacent terminal electrodes even when a substrate is polished after cutting the substrate on which the electrode pattern is formed (Col. 2, Lines 37-41).

Mizuno solves the problem of short-circuiting in part by the arrangement as illustrated in Figure 2.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify APA Figure 17 in view of Mizuno for preventing short-circuiting between neighboring terminal electrodes.

Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA) Figure 17 in view of Mizuno et al. (US 6,522,378 B1) and further in view of Kobayashi (JP-09-318962).

Per claim 4: Kobayashi, Figure 8, illustrates an electronic device that incorporates the electrical circuit having the differing electrode widths. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the electrical circuit as claimed in claim 1 into an electronic device where one could easily and efficiently test for breaks and shorts and thereby ensure an excellent display quality.

Art Unit: 2871

III. Claims 1-3 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA) Figure 17 in view of Hayakawa et al. (US 5,838,411).

Per claims 1-3: Applicant's Figure 17 discloses a part of an electrode width of an electrode strip in an unformed region of a protective layer being equal to an electrode width of an electrode strip on the protective layer within an effective region (DESCRIPTION OF RELATED ART, page 1, lines 10-32 and page 2, lines 1-32). In Figure 17, it may be implied that a pair of sides of an electrode strip align with each other as recited in claim 3. APA (Figure 17) does not appear to have a plurality of electrode strips arranged on the protective layer and extending from a formation region of the protective layer to an unformed region of the protective layer, an electrode width of an electrode strip in a step portion forming an outline of the protective layer being set to be narrower than an electrode width of an electrode strip in the protective layer in an effective region of the liquid crystal device; however, Hayakawa Figure 10 illustrates electrodes with width extending regions narrower than widths of electrodes (Figure 10, electrodes 38 and 39).

The problem to be solved in Hayakawa is one of preventing short-circuits between dummy electrodes and spurious switching (Col. 6, Lines 24-32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify APA Figure 17 in view of Hayakawa to prevent short-circuits between dummy electrodes and spurious switching.

Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA) Figure 17 in view of Hayakawa et al. (US 5,838,411) and further in view of Kobayashi (JP-09-318962).

Art Unit: 2871

Per claim 4: Kobayashi, Figure 8, illustrates an electronic device that incorporates the electrical circuit having the differing electrode widths. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the electrical circuit as claimed in claim 1 into an electronic device where one could easily and efficiently test for breaks and shorts and thereby ensure an excellent display quality.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (703)305-7009. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (703) 305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-8741 for regular communications and (703)746-8741 for After Final communications.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Jeanne Andrea Di Grazio

Robert Kim, SPE

JDG

August 7, 2003


TOANTON for SPE
PRIMARY EXAMINER